

JPRS 82393

6 December 1982

Worldwide Report

NUCLEAR DEVELOPMENT AND PROLIFERATION

No. 171



FOREIGN BROADCAST INFORMATION SERVICE

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DEBATE IN LABOR PARTY OVER NUCLEAR POLICY CONTINUES

Action in Victoria

Sydney THE SYDNEY MORNING HERALD in English 4 Oct 82 p 1

[Article by Jenni Hewitt]

[Text]

CANBERRA. — It is a major rebuff to Mr Hayden and the Federal ALP, the Victorian Branch of the Labor Party decided yesterday that the ALP's new policy on uranium mining was unacceptable.

This was despite a plea from the Victorian Premier, Mr Cain, that such a declaration would be useful to demonstrate damaging divisions within the party, and that the Victorians should not directly contradict national policy.

The special conference of about 400 delegates yesterday overwhelmingly defeated a less critical amendment from Mr Cain which merely expressed concern at the policy adopted at the national conference last July.

This policy greatly softened the ALP's anti-uranium mining stance by allowing existing contracts to be honoured if certain conditions were met, and by committing the party to a phasing out of the industry rather than an immediate closing.

Mr Hayden, who strongly pushed for the change of policy nationally, argued forcibly against a motion at the Queensland council last week which would have toughened the interpretation of the policy. He said that it would be very difficult and damaging for the party, and the motion was narrowly defeated.

But the Victorian conference voted for a special national conference to debate the uranium issue again and for the parliamentary party to spell out its policy, including the immediate repudiation of contracts.

The call for a special national conference is unlikely to succeed, as Victoria would need the support of at least three other States. But it is very awkward for the party's attempts to present an image of unity, and the Government is certain to capitalise on the situation.

The strength of the conference vote on four resolutions reflected considerable cross-factional support rather than just the Socialist Left, although this was the main area of support.

In a long debate, the Opposition spokesman on industrial relations, Mr Hawke, was heckled and booed several times when he defended the new policy and said that the old policy had been unworkable.

The general resolution stated that the Victorian branch believed the policy was particularly unacceptable because it allowed the mining and export of uranium to proceed for an indeterminate period under a Labor Government; allowed the development of new uranium deposits in certain circumstances; and committed a Labor Government to accepting as "practicable" safeguard policies which are "vague, inconsistent and ultimately unenforceable."

The Cain amendment, which referred to the branch being "deeply concerned," was seconded by the Victorian secretary, Mr Bob Hogg.

Mr Hogg was the one who moved the new policy at the July conference, but his position yesterday reflects the fact that the national policy leaves a Labor Government considerable room to manoeuvre.

Mr Hogg said that he believed the new policy was an anti-uranium policy and that he had moved it to prevent any chance of pro-mining policies getting passed.

Mr Hayden, who made a special trip to Western Australia two months ago to argue against another conference to debate uranium, did not attend the Victorian conference.

In another defeated amendment, the shadow attorney-general, Senator Evans, tried to

soften a resolution which called for the parliamentary Labor Party to spell out the specifics of its policies, including the immediate repudiation of contracts.

This resolution is, in effect, now even tougher than the party's 1977 uranium mining policy, although the Victorian branch also called for a return to that policy.

Another resolution which was accepted is to establish a working party to consider how the anti-uranium policy can be implemented. The national executive will be asked to set up a working party on this and conduct a seminar on it by 1983.

The strategy behind the Victorian moves is to ensure that the uranium debate continues in the Labor Party and draws national attention, if not any immediate results. The special conference yesterday was called after a petition from delegates.

Victory for Left

Canberra THE AUSTRALIAN in English 5 Oct 82 p 1

[Article by Wio Joustra]

[Text] THE Left of the Labor Party has pledged its support for the ALP's uranium policy in case of an early election.

A leading spokesman for the Left, Mr Brian Howe (Vic), said yesterday the ALP's policy, which involves a Labor government honoring existing contracts, would be binding if an election was held before the end of the year.

His comments followed the Victorian Labor Party's decision at the weekend to change the softer line on uranium adopted amid bitter debate at the ALP national conference in Canberra three months ago.

The move was a victory for the Left and a clear rebuff to ALP leaders such as Mr Hayden, the Victorian Premier, Mr Cain, the spokesman on minerals and energy, Mr Paul Keating, and the spokesman on employment and industrial relations, Mr Bob Hawke.

It again showed up the public rift on the issue within the

ALP and Mr Howe said the chances of a national conference being held to re-examine the issue were "quite strong".

But Mr Keating immediately retorted that the Victorian decision would not receive the support of three other States necessary to convene a national conference.

Mr Keating played down the importance of the Victorian vote, saying the support for Labor's anti-uranium policy of 1977 had always been much greater in Victoria than anywhere else.

Irritant

The new policy had been determined after a fierce debate at the largest national conference ever held by the ALP.

The Victorian move was a "minor irritant" compared with the massive divisions within the Liberal Party.

Earlier yesterday Mr Cain had virtually ruled out any chance of a special national conference to re-examine the

issue and said he had no knowledge of any strong moves for it in States such as NSW, South Australia, Queensland and Western Australia.

However, he did not regret that the emotional debate had taken place: "I think the discussion that took place in Victoria should have taken place before the federal conference in Canberra in July and I think there is a case for saying the party generally was not ready for the change and Sunday's discussion perhaps made up for that in some way."

In South Australia, the Leader of the Opposition, Mr Bannon, agreed with Mr Cain and said he thought it "most unlikely" other States would move against the policy as amended in June.

But Mr Bannon was critical of that softer policy line and at its introduction. He said the rank and file of the party had been "led up the garden path".

UNION'S BREAK WITH OTHERS IN PACIFIC, PLAN BAN ON FRENCH

Melbourne THE AGE in English 30 Sep 82 p 6

[Text]

NOUMEA, 29 Sept. — Australian unions will go ahead with plans to consider bans on French shipping over France's nuclear tests in the Pacific.

This is despite a decision by delegates at the Pacific Trade Union Conference yesterday to defer a proposal for a co-ordinated ban by unions in the Pacific region against French shipping, and a boycott on French consumer goods.

The vice-president of the ACTU, Mr Simon Creen, said the ACTU was obliged to consider bans.

Mr Creen said an ACTU executive resolution passed recently said that if co-ordinated action could not be achieved then Australian unions should consider a separate two-week ban on shipping and other transport from "metropolitan" France.

But he said bans were unlikely to be imposed before November, when the ACTU executive would meet to consider the matter.

Delegates to the second Pacific Trade Union Conference, which ended yesterday, voted to suspend discussion on a section of a resolution on the nuclear issue. The section called for bans to be imposed against French shipping by unions in all member countries.

The suspension of discussion was to allow the conference's organising body, the Pacific Trade Union Forum, to consider the matter further, and if necessary refer it back to national union centres in each member country.

Discussion on the proposal was suspended after delegates from New Caledonia and Australia could not reach agreement on the final wording of the bans resolution.

SECOND DIRECT-LEACHING URANIUM MINE SET FOR SOUTH

Canberra THE AUSTRALIAN in English 30 Sep 82 p 2

[Text]

CONSTRUCTION of Australia's second direct-leaching uranium mine, in South Australia, may begin by the end of the year.

Western Nuclear Australia Ltd, major shareholders in the Beverley uranium project, are preparing the final environmental impact statement for a proposed pilot plant to be built at the huge deposit in the north-east of the State.

Public submissions for the draft impact statement closed last week and the developers are confident of winning government approval when the final statement is published.

The Beverley project is expected to yield 15,800 tonnes of uranium, almost five times as much as the Honeymoon project approved this year 150km to the south.

The chairman of Western Nuclear, Mr John McGlinchey, said yesterday the company planned to use the controversial *in situ* leaching method.

This involves pumping acidified groundwater through cased and screened wells to dissolve the uranium and bring it to the surface.

Anti-uranium bodies claim the chemically treated water causes irreparable damage to the environment over a wide area when it is returned to the aquifer.

Mr McGlinchey said if the project were approved, a pilot plant with a capacity to mine 10 tonnes of uranium a year would be built to test the deposit's viability.

The uranium oxide at Beverley is in sandstone strata and considered suitable for *in situ* recovery.

The *in situ* method accounts for about 10 per cent of all uranium mined in America.

Mining companies claim uranium oxide recovery through *in situ* leaching reduces the amount of radioactive waste produced, and causes less environmental disturbance.

Western Nuclear, part of the New York-based Phelps Dodge Corp group, is expected to spend about \$300 million developing the Beverley project in conjunction with partners.

Mr McGlinchey said all environmental considerations and safeguards were being observed in the planning.

Anti-nuclear lobby groups claim, however, that the hydrology of the area would lead to disaster if the project went ahead.

BRIEFS

RADIOACTIVE TAILINGS--SIGNIFICANT areas of radioactive tailings had been found at Wonnerup, near Busselton, State Parliament has been told. The Minister for Health, Mr Young, said that the landowners, the local shire council and Cable Sands Pty Ltd had been told remedial action was needed. Replying to the the Legislative Assembly to the Opposition spokesman on health, Mr B. Hodge (Melville), Mr Young said the Department of Mines had advised that from 1949 to 1980 three companies had held the dredging claim involved. They were P.L. Reynolds, Ilmenite Pty Ltd and Cable Sands Pty Ltd. Advice was being obtained from the Crown Law Department on who was responsible for cleaning the area and ensuring that it was safe. [Perth THE WEST AUSTRALIAN in English 29 Sep 82 p 56]

CSO: 5100/7506

INDIAN DELEGATE SPEAKS IN UN POLITICAL COMMITTEE

Calcutta THE STATESMAN in English 6 Nov 82 p 5

[Text]

UN H.Q., Nov. 5.—India used strong language at the U.N. yesterday to deplore the negative attitude of nuclear Powers towards efforts aimed at achieving disarmament, reports P.T.I.

"It is the major Powers with the primary responsibility for the pursuit of disarmament who have made a mockery of the multilateral process and have undermined the authority of the General Assembly," the Indian delegate, Mr. Chanana, told the Political and Security Committee currently discussing disarmament matters.

Mr. Chanana said: "The majority must assert itself and not allow the cause of human survival to become a casualty of the policies of rivalry and confrontation among the major Powers and alliance systems headed by them."

"As a non-aligned country, India cannot and will not accept the role of a helpless spectator on the sidelines, while this slide towards mass annihilation continues. Together with other non-aligned countries, we intend to raise our voice against forces that threaten our collective survival and join hands with the people all over the world

who are beginning to stand up and say 'enough'," Mr. Chanana added.

Mr. Chanana rejected the theory that nuclear deterrence was necessary to prevent the outbreak of all wars both nuclear and conventional. Balance on the doctrine of nuclear deterrence lay at the heart of the arms race, he said.

Mr. Chanana joined issue with the argument that deterrence had kept the peace in Europe. It was not an argument, but a superstition. Would the provision of nuclear deterrence deny that Europe today was a region with the highest concentration of both nuclear and conventional armaments, and that the logic of deterrence was still fueling an even greater saturation of the continent, with more deadly and destructive weaponry? he asked.

Mr. Chanana committed to the committee India's proposal for the conclusion of an agreement on the prohibition of the use or threat of use of nuclear weapons. His delegation was gratified at the support the proposal had attracted and it was willing to consider any other ideas that would serve to reduce the risk of nuclear war.

INDIA FOR UNCONDITIONAL BAN ON NUCLEAR ARMS USE

New Delhi PATRIOT in English 5 Nov 82 p 3

[Text] United Nations, Nov 4 (PTI)--India has proposed at the UN Legal Committee that any declaration on the non-use of force should provide for unconditional and explicit prohibition of the use of nuclear and thermo-nuclear weapons.

The committee, which is discussing the report of its special committee on enhancing the effectiveness of the principle of non-use of force in international relations, was also told that concept of force should be so defined as to include not only military or physical force but also all forms of coercion, whether political or economic, which might have consequences not less serious than naked use of force.

The Indian delegate, Dr P. Sreeni vasa Rao, said there must also be express provision for denying any legal validity to acquisition of territory through the use or the threat of use of force.

Dr Rao made following other suggestions, in referring to the exceptional cases of lawful use of force, "we must include such use of force by people struggling against colonialism, alien domination, foreign occupation, racial discrimination and apartheid, in addition to the collective use of force and the inherent right of self-defence as sanctioned under the UN charter."

"The mandate of the special committee to enhance the effectiveness of the principle of non-use of force in international relations must be expeditiously completed."

The proceedings of the usually staid legal committee became acrimonious this week as some countries accused each other of 'hypocrisy' in talking about non-use of force.

Singapore told the Soviet Union which has proposed a world treaty on non-use of force its action did not match its precepts it had used force against Afghanistan to instal a 'puppet regime.'

In response to allegations from Israel, Syria pointed out that Israel had been condemned more than 26,000 times for violating agreements and committing acts of aggression against Syria.

Afghanistan said it refrained from giving a detailed reply to the statement of China whose 'way of behaving is very understandable,' nor would it reply to Singapore 'which sang a refrain written by her masters.'

CSO: 5100/7022

PLANNED CREATION OF ATOMIC ENERGY BOARD REPORTED

Rajya Sabha Discussion

New Delhi PATRIOT in English 5 Nov 82 p 5

[Text]

The creation of an Atomic Energy regulatory board is under the Government's consideration. Prime Minister, Indira Gandhi informed the Rajya Sabha on Thursday, reports PTI.

The Prime Minister told Mr B C Pattanayak in a written reply that the main function of the proposed board would be to carry out the regulatory and safety functions envisaged for the Central Government under the Atomic Energy Act of 1962.

Mrs Gandhi replied in the negative when asked whether the board was being constituted on the lines of the Nuclear Regulatory Commission of the US. The NRC in the US also regulated exports of nuclear products and equipment, she added.

Mrs Gandhi told Mr Jaswant Singh, in a separate reply, that no agreement had been reached with France for the supply of enriched uranium for the fast breeder test reactor at Kalpakam.

She said the discussions with France on the subject had been initiated in 1971.

Minister or State for Science and Technology C P N Singh re-

plied in the negative when Mr G C Bhattacharya asked, in a separate question, whether it was a fact that nuclear power plants were being pruned and if so was it in accordance with IDA/IMF/World Bank advice.

The Minister reiterated that the Government had drawn up a programme for setting up a series of nuclear power stations with an installed nuclear power capacity of 10,000 mw by the turn of the century.

Mr Singh said the target for production of heavy water in the current financial year was 80 tonnes, against the anticipated demand of 426 tonnes. The production during the previous year was only 39.4 tonnes.

He said the installed capacity for production of heavy water in April this year was 152.5 tonnes. The additional installed capacity expected to come on line during the next five years was 302.7 tonnes. This would include 162.7 tonnes in the current financial year and 140 tonnes in 1986-87.

The anticipated demand for heavy water was estimated to rise from 426 tonnes in 1982-83 to 1204 tonnes by 1986-87.

Madras THE HINDU in English 8 Nov 82 p 8

[Editorial]

[Text]

THE STATEMENT BY the Prime Minister before the Rajya Sabha to the effect that the Central Government is considering setting up an atomic energy regulatory board to carry out the regulatory and safety functions envisaged under the Atomic Energy Act of 1962 raises issues relevant to the future of the field. An objective review of the country's experience over three decades would show that the vision of harnessing nuclear energy has clearly paid off — with a rounded programme suggesting capabilities and a future that should not be obscured by the current lean season in nuclear power or by some signs of wavering in the policy arena. There is no cause for pessimism in that the programme can rely on at least three major advantages. The first is strong State and public support backed by adequate resources in independent India. There have been deviations from the set course in Indian nuclear policy but what stands out is the acceptance, through a sort of national consensus, of an activist and growingly self-reliant thrust in the field. The second is the marrying — although the bond needs to be considerably strengthened — of basic scientific research with the technological-industrial conditions for a successful nuclear programme within the limitations of a developing country. Thirdly, although this aspect has also proved problematical in the most recent period, the contacts and links with trends of international advance in the scientific and technological-industrial sides of the development have been active. Fortunately, the Indian experience (unlike the experience of some other developing countries) has had no need to pursue a back-to-the-wall, autarkic or clandestine course in the area. Of course, like every other significant national activity the atomic energy programme is in need of openness to public and non-official expert criticism. There appear to be some signs of complacency with respect to deliverable performance, perhaps an insufficient accountability, and even symptoms of touchiness in encounters with questions of public safety. In short, while recognising that over the long haul the programme has developed along sound and reasonably healthy lines, in the immediate term measures are called for to revitalise the programme and to strengthen public confidence in it.

The question that should be examined very closely before the next move is made is whether a new-fangled regulatory agency — which might duplicate safety and regulatory functions currently performed by the Central Government through the Department of Atomic Energy and

the Atomic Energy Commission and also lengthen the red tape — is what the situation calls for. Although the track record of the Indian atomic energy programme has been good with respect to overall safety, a case may be made out for setting up a special watchdog arrangement to secure the future and also to strengthen public confidence. Whether a body of bureaucrats (as distinct from independent or non-official scientific and technical experts) can discharge such a responsibility in a way that cannot be achieved under the present set-up is very much to be doubted. Likewise so far as the regulatory side of the job goes, it is difficult to see what expertise a board concerned essentially with nuclear power projects could contribute to the development of the overall programme that the present methods or procedures cannot. The experience of some of the more prominent developed countries with nuclear programmes, notably the United States, does not seem to be relevant to India in this respect — except, perhaps, in a negative sense. The abolition of the U.S. Atomic Energy Commission in the Seventies and its replacement by the Nuclear Regulatory Commission does not seem to have produced any creative results. As a leading Indian nuclear scientist pointed out in an article published in THE HINDU's 1981 Survey of Indian Industry, the international experience with respect to 'regulation' has tended to run along the following lines: "Some of the countries advanced in the technology of nuclear power have an agency to promote nuclear power and another one to regulate the progress of nuclear power and to ensure that the progress is not made at the cost of public safety... Naturally, the decisions taken by a nuclear regulatory agency have to be on the basis of scientific analysis. Nevertheless it can be seen that political appointments to these regulatory agencies abroad often lead to ill-informed and very articulate lawyers sitting in judgment on highly technological issues. Besides, the attitude towards nuclear power changes from government to government." If pitfalls such as this are to be avoided, a very much better case must be offered for the setting up of an atomic energy regulatory board in India than has been made so far — especially in a context where nuclear power generation is an exclusive government venture and there is little if any part of the overall atomic energy activity that is not already supposed to be tightly regulated and monitored.

REPORTAGE ON INDO-FRENCH NEGOTIATIONS ON FUEL

Agreement Reported Reached

Calcutta THE STATESMAN in English 6 Nov 82 p 1

[Text]

NEW DELHI, Nov. 5.—India and France have reached an agreement on the supply of nuclear fuel for the Tarapur atomic power plant, reports UNI. According to informed sources, France will supply enriched uranium within the framework of the 1963 Indo-U.S. agreement on Tarapur.

The sources said France had conveyed its willingness to drop the "pursuit" and the "perpetuity" clauses, which had been a major hurdle in reaching an agreement.

The chairman of the Atomic Energy Commission, Mr H. N. Sethna, was summoned here from Bombay earlier this week for high-level consultations and the work out details of the deal.

After all details are worked out formally, India will exchange separate letters with the USA and France.

It is significant that the deal has been finalised just prior to the visit of the French President, Mr Francois Mitterand, to India.

The External Affairs Minister, Mr P. V. Narasimha Rao, had hinted in Parliament last month that India would drop the proposal of

together if France insisted on stringent safeguards for supplying the fuel.

The decision on France becoming an alternative supplier of low-enriched uranium for Tarapur was taken during Mrs Gandhi's visit to Washington in July. The proposal initially came from the U.S. side.

The French side is understood to have rolled from its stand on the pursuit and perpetuity clauses after it was convinced that India would finalise the deal only within the framework of the Indo-U.S. nuclear agreement.

It is learnt that France may not be interested in taking back the spent fuel.

Inscribing a "pursuit" clause would have meant that the International Atomic Energy Agency could apply the safeguards—to prevent the use of the fuel for the manufacture of a nuclear bomb—not only to Tarapur, but any other plant using its by-products.

A "perpetuity" clause would have the effect of the IAEA applying these safeguards even after the expiry of the Indo-U.S. agreement in 1983.

Sethna: Negotiations Continue

Bombay THE TIMES OF INDIA in English 7 Nov 82 p 1

[Text]

NEW DELHI, November 6.

THE chairman of the atomic energy commission, Mr. H. N. Sethna, said today that negotiations with France for the supply of enriched uranium for Tarapur were continuing.

He described as incorrect a press report that the French side was no longer insisting on "perpetuity and pursuit" clauses in the agreement for the supply of nuclear fuel for Tarapur.

The issue was raised at the parliamentary consultative committee for the scientific departments and Mr. Sethna responded to the questions by Mr. N. K. Shrivastava and Mr. K. C. Pant. The subject was disposed of before Mrs. Indira Gandhi arrived at the meeting.

The consultative committee was told by Dr. Raja Ramanna, secretary, atomic energy department, that the mixed oxide fuel, developed indigenously as a substitute for the imported enriched uranium for Tarapur, was available for use.

Reply to Mr. Pant, he said that R-2 research reactor would be ready next year and so also would be the new reprocessing plant.

Since Mr. Pant wanted a detailed exposition of nuclear policy and planning, Mr. Sethna apprised the committee of the developments regarding the fast-breeder reactor. Dr. Ramanna also referred to the fusion research projects.

ELECTRONIC FIELD

It was stated that efforts were being made to raise the installed capacity of nuclear power from the present 80 MW to about 10,000 MW by 2000 AD by setting up four-unit stations at a number of sites. The earlier stations will have 235 MW units and the latter stations 500-MW units, for which design work was in progress.

Regarding the working of the Rajasthan atomic power station, it was stated that the government is examining the expert group report.

In the area of electronics, the Prime Minister said there was no question of being complacent and referred to the great growth potential and export possibilities in this field, would start manufacturing chips by October next year.

UNI adds: An official spokesman said press reports about the French supply of nuclear fuel for the Tarapur atomic power station were "premature."

CSO: 5100/7023

BRIEFS

GANDHI ON NUCLEAR POWER--The Government has planned to raise nuclear power installed capacity from the present 860 MW to 10,000 MW by the end of the century by setting up five stations of four units each. This was stated by Prime Minister Indira Gandhi at a meeting of the parliamentary consultative committee attached to the Departments of Atomic Energy, Space, Electronics, Science and Technology, Ocean Development and Environment on Saturday. Initially, she added, the stations will be of 235 MW units but later these would be switched over to 500 MW units for which designing work was already in progress. As for the atomic energy programme beyond 2000 A.D., she said that the design for a prototype of 500 MW fast breeder reactor based on thorium fuel was being developed. Thorium fuel was abundantly available in the country and the fast breeder technology was expected to make an important contribution towards development of nuclear power in the country in the next century. [Text] [New Delhi PATRIOT in English 7 Nov 82 p 1]

URANIUM RESOURCES--Prime Minister Indira Gandhi said in the Lok Sabha on Wednesday that our existing proven resources of uranium are considered adequate to meet the target of increasing the installed capacity of nuclear power plants to 10,000 mw by the year 2000, reports PTI. The Prime Minister told Mr Arjun Sethi that facilities of mining of uranium, manufacturing of fuel and heavy water were also being augmented as required. In addition, efforts were being made to enable indigenous industry to gear itself to the production of the various components required for the programme. Mrs Gandhi said the installed capacity of nuclear power plants accounted for approximately 2.6 percent of the present installed capacity for electricity generation. For increasing the installed capacity of nuclear plants to 10,000 mwe, the Prime Minister said, it was initially proposed to set up a number of 235 mwe unit size reactors of the standardised Narora type to be scaled up later to 500 mwe unit size. [Text] [New Delhi PATRIOT in English 4 Nov 82 p 5]

CSO: 5100/7021

INDONESIA

BRIEFS

NUCLEAR COOPERATION WITH FRG--The National Atomic Energy Agency--BATAN--officially entered into a cooperation with the West German Government in the field of nuclear energy researched and application for peaceful purposes in Jakarta on 29 October under an Indonesian-West German agreement in the field of research and technology. The cooperation was established to train young BATAN scientists for the Serpong Technological and Scientific Research Center. [Text] [BK220553 Jakarta Domestic Service in Indonesian 1200 GMT 29 Oct 82]

CSO: 5100/4307

UN DELEGATE DISCUSSES NUCLEAR POWER PROGRAM

BK201257 Karachi Domestic Service in English 1700 GMT 19 Nov 82

[Text] Pakistan has told the UN General Assembly that concern for nuclear proliferation should not militate against the inherent right of the developing countries to benefit from peaceful nuclear technology on a universal and nondiscriminatory basis. Unilateral restrictions on access to nuclear technology cannot prevent nuclear proliferation. Speaking in a debate on the annual report of the International Atomic Energy Agency [IAEA], Pakistan's permanent representative at the United Nations S. Shahnawaz said that nuclear nonproliferation could be brought about through a genuine political will and consensus to achieve progress in nuclear disarmament rather than by confining the benefits of nuclear technology to a group of privileged states. The Pakistan delegate reiterated his country's commitment to nuclear nonproliferation. He assured the assembly of Pakistan's scrupulous observance of the existing safeguards agreement. He enumerated in detail how the negotiations preceded on additional safeguards proposed last year by the IAEA in respect to Pakistan's nuclear reactor near Karachi. Since its operation in 1972, the reactor was subjected to regular safeguard inspections. The 70 such inspections carried out so far had satisfied the agency of Pakistan's compliance of the terms of safeguard agreement.

The Pakistan delegate pointed out that nuclear energy was indispensable for the future economic development of the world, particularly for developing countries. He said nuclear power would account for 17 percent of the world electricity production by 1985 as compared with 9 percent at present. A substantial growth in the capacity to generate nuclear energy, he pointed out, would take place in the developed world that would further widen the energy consumption gap and thereby the disparities between the industrialized countries and the rest of the world.

CSO: 5100/4308

URANIUM ENRICHMENT EQUIPMENT PACKED FOR SHIPMENT IN FRG

Sao Paulo O ESTADO DE SAO PAULO in Portuguese 20 Oct 82 p 31

[Dispatch by special correspondent Jorge Rosa]

[Text] Munich--The first equipment for the uranium enrichment plant utilizing the jet-nozzle process, which will be installed in Resende in the state of Rio de Janeiro, has begun to be packed by the German Messerschmitt-Bolkow-Blohm (MBB) Company, which is engaged in the development of that technology exclusively for Brazil and is not yet known in the Federal Republic of Germany on an industrial scale. The MBB experts guarantee that the system is going to work as in the test phase in an experimental model. The process used in Germany is completely different from the one that is being delivered to Brazil.

Three Brazilian Nuclear Corporation (NUCLEBRAS) officials are in Munich working on the assembly of that high-precision equipment at the same time that they learn to handle it under the guidance of MBB experts. Twenty-four other Brazilians sent by NUCLEBRAS will begin to arrive in this city next week to join the same training program. The MBB's explanation of the fact that the jet-nozzle system is not being used in the FRG is connected with economic factors. They say that it would not be justified to introduce a new technology when uranium enrichment by gas-centrifugation has been used for more than 10 years.

Smaller Concentration

The MBB defines the nozzle system as "an interesting process for the enrichment of uranium." It was developed by Prof E.W. Becker and his team at the end of the 1960's as an alternative to the processes of gaseous diffusion and gaseous ultracentrifugation, which is the system currently used in Germany. The manufacture of the components that comprise the nozzle system requires high precision, even with the use of equipment with multiple diamonds that permit measurements in the range of 0.001 millimeter. Detailed photographs of those parts can only be made with the aid of electronic microscopes.

The MBB avoids going into details about the reason for selling the nozzle system to Brazil. One of its publications explains that it is a "process that works according to a relatively simple physical principle" and points out that it is already economically profitable for the construction of small uranium enrichment plants. That enrichment is a basic factor for the operation of a nuclear plant.

According to the explanation of the MBB expert, the light isotope of Uranium U-235 is used as a natural fissionable material for the production of nuclear energy. Its concentration in natural uranium, however, is only 0.72 percent. The remainder consists of the isotope U-238, which is not fissionable by slow neutrons. Reactors need uranium with an isotopic concentration of 3 percent for their operation. It is for that reason that it is sought artificially to enrich the U-235 contained in the natural uranium. That is the function of the nozzle process developed by the Germans.

Although the MBB does not refer to subject explicitly, in conversations with its experts, one may arrive at the conclusion that the reason for the sale to Brazil of a process not proved on an industrial scale or in large facilities instead of the traditional and efficient system of gaseous centrifugation is connected with safety factors. It may be recalled that the Brazilian Government was subjected to international pressures at the time of the signing of the agreement with Germany because it was not a signatory to the Treaty on the Nonproliferation of Nuclear Devices. That situation remains unchanged.

An MBB publication explains, for example, that the enrichment facilities utilizing the nozzle process would not entail any danger with reference to the proliferation of nuclear weapons "inasmuch as the U-235 in the almost pure form needed for the production of nuclear bombs cannot be produced clandestinely." It so happens that it is possible to obtain U-235 with a concentration of 7 percent through the gaseous centrifugation system, which would be sufficient for the production of nuclear weapons. The U-235 at a concentration of 3 percent, the maximum obtained by the nozzle process, serves only for the production of electric energy.

8711
CSO 5100/2007

OPERATION OF FUEL ELEMENTS FACTORY IN RESENDE DISCUSSED

Rio de Janeiro MANCHETE in Portuguese 6 Nov 82 pp 168-169

[Text] For the second time this year, President Joao Figueiredo has unveiled the inaugural plaque of a Brazilian Nuclear Corporation (NUCLEBRAS) nuclear unit. The first, in the Pocos de Caldas Plateau, marked the beginning of uranium production in Brazil; now, on the 20th of last month, the inauguration of the Fuel Elements Factory (FEC) in Resende (Rio de Janeiro). Counting Nuclebras Heavy Equipment Corporation (NUCLEP), the nuclear reactor factory which began its operations in 1980, there have now been three units of the Brazilian nuclear program to which Figueiredo has been able to lend prestige by his presence, confirming the continuity of the program and dispelling the rumors and insinuations that the work was at a standstill. In 1984, the president of the republic is going to inaugurate the fourth project of our nuclear industry: the uranium enrichment plant, also in Resende, near the FEC.

The president's visit to Resende was not limited to the FEC. Accompanied by five ministers, he made it a point to visit, outside of the official program, the NUCLEBRAS Isotopic Enrichment Corporation (NUCLEI), the subsidiary charged with installing the uranium enrichment plant utilizing the centrifugal jet process. There, he spoke to technicians, asked many questions, gathered information on the competitiveness of the centrifugal jet process compared to the two other commercial enrichment processes available in the world, and he was able to view the assembly of the isotopic separation stages. The first phase of the plant will be inaugurated during his administration.

The Precious Fuel: With the inauguration of the FEC, the 13th of its kind in the world, Brazil takes a great step on the difficult road toward self-sufficiency in energy. The factory produces the fuel elements--the armor that sheathes the uranium and inserts it in the heart of the reactors. The manufacture of the fuel element is the last phase before insertion of the fuel in the nucleus of the reactor; a decisive stage in the fuel cycle, the long road traveled by the uranium from the deposit to the reprocessing plant.

In order to assess the immense energy potential contained in the uranium, an example suffices: a single fuel element produced in the FEC (with 530 kilos of uranium) can generate enough energy to take care of the consumption of 42,000 average-sized homes for 1 month. The FEC produces an average of three elements per week. A comparison with other energy sources: the supply of electric energy to the same number of homes for the same period would require the consumption of more than 5,200 tons of oil, or more than 13,000 tons of coal.

Recipe Against Crisis: In his speech greeting the president of the republic, the president of NUCLEBRAS, Ambassador Paulo Nogueira Batista, expressed the conviction that "one of the ways to overcome the serious economic-financial crisis which the country faces, a good part of which is of external origin, may be in maintaining an appropriate and selective rate of investment.

"That seems to us to represent a response to be given in the field of energy where, under the guidance of the minister of mines and energy, a diligent effort is being made to create a new energy structure capable of supporting the autonomous development of the nation's economy, generating employment and social well-being," he declared.

The NUCLEBRAS president explained that the schedule of the FEC's production begins with the assembly of the 40 structural elements of the first recharge of the Angra-I nuclear plant, and then that of the 193 elements of the first charge of Angra-II. The complete cycle of the FEC's operations will be achieved with the manufacture of ceramic pellets beginning in 1985, and of the enriched uranium oxide beginning in 1982--units attached to the FEC.

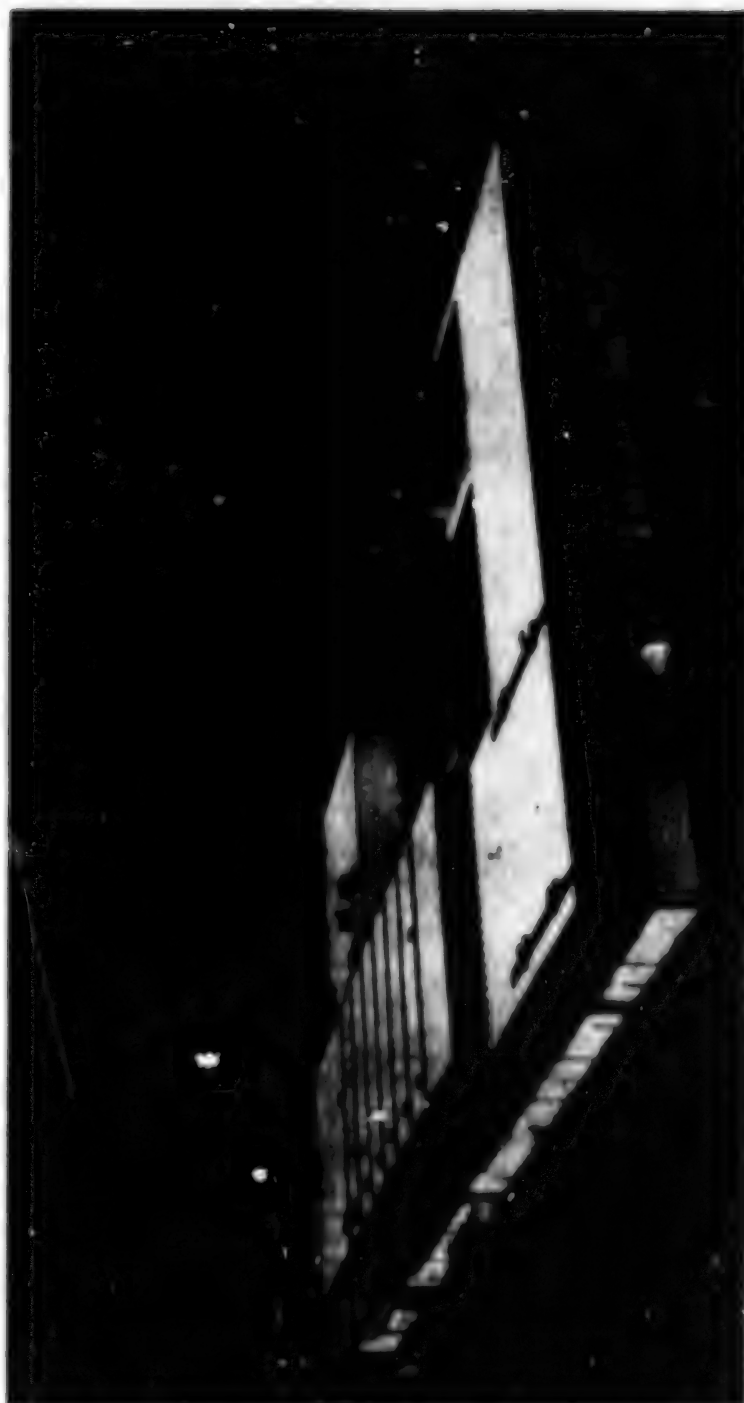
In his speech, Paulo Nogueira Batista stressed that the efficiency of the nuclear power plants in generating electricity will depend on the quality of what the FEC produces.

"That explains the particular significance assumed by all matters related to quality guarantee and quality control, which reach the most demanding levels within the overall nuclear industry," he stated.

The NUCLEBRAS president explained also that the strategy of technological independence pursued within the framework of the Brazilian-German nuclear agreement includes implementation in the FEC of a program already underway of national production of a number of components, such as the end cap of the rods, the spacing grilles, and the nozzles of the fuel elements. He added that the manufacture in Brazil of the sheathing tubes for the rods, which is also a basic stage, will be turned over to private industry.

Within this program of national production, the strategy pertaining to the zircalloy, a special metallic alloy used in the manufacture of the fuel element rods, initially includes a phase of formation of strategic stocks. Later, in a second phase, NUCLEBRAS will manufacture not only the alloy but also the zirconium sponge itself, which requires highly sophisticated technology.

The process of the manufacture and control of the fuel element requires a high degree of sophistication in mechanical precision and quality guarantee, through the use of ultrasonic equipment, X-rays, special solders and other resources. The manufacturing operation was preceded by the careful preparation and training of technicians: for 2 years, NUCLEBRAS trained 52 technicians in a similar factory of RBU in Germany; for 8 months, after their training, they operated the assembly line of that factory where the fuel elements for the German reactors are produced.



The Fuel Elements Factory (FEC) in the NUCLEBRAS industrial complex in Resende

The FEC is in a position initially to produce 100 tons of fuel elements annually, sufficient to take care of the power plant program being carried out, until 1990. In the meantime, the factory layout permits quadrupling production with a minimum addition of investment in equipment. The current FEC facilities represent an investment of \$31 million, 90 percent of which pertain to services--including construction and installation--and equipment produced in Brazil.

B711

C50: 5100/2007

EMERGENCY PLAN FOR ANGRA TO BE SUPPLIED LATER

Rio de Janeiro O GLOBO in Portuguese 20 Oct 82 p 8

[Text] Brasília--Although it already exists on paper, the emergency plan for the evacuation of the inhabitants of Angra dos Reis in the event of an accident at the local nuclear plant will not be publicized until the National Safety Council so decides. The information was provided by government experts, who added that the reason for the secrecy is that the authorities do not want to panic the population.

The plan was prepared jointly by the Special Secretariat of Civil Defense (SEDEC) of the Ministry of the Interior and by the National Nuclear Energy Council (CNEN) with the advice of the Special Secretariat for the Environment (SEMA), which is also an agency of the Ministry of Interior.

According to government experts, the main idea regarding the plan is that details that really concern the public be publicized through an intensive media campaign. Thus, an accident would not be announced immediately even though in that case all emergency safety measures were already being put into practice.

The plan for the evacuation of the inhabitants of Angra would be put into operation gradually so that the community would not become very aware initially. What the experts do not explain is how the authorities could implement those stages of the plan without the people knowing about it.

According to those specialists, that makes sense because, they argue, it is quite possible for an accident to occur in a nuclear plant that is taken care of by internal security without the fact becoming known by many employees. Obviously, in the case of a more serious accident that cannot be handled, the emergency plan for the city will be put into operation.

Since, in the opinion of the National Safety Council, the subject also has a psycho-social aspect in addition to its technical nature, the official publication of the plan will be governed by criteria determined exclusively by that agency attached directly to the presidency of the republic.

8711

CSO: 5100/2007

BRAZIL

BRIEFS

ARGENTINE TECHNOLOGY OFFER--The former technology manager of the Argentine Atomic Energy Commission and now researcher for the Bariloche Foundation, Jorge Sabato, acknowledged in Anhembi Park yesterday that if it wants, Brazil may have access to Argentine nuclear technology based on natural uranium in case the jet-nozzle process to be developed by Germany and Brazil turns out not to be commercially feasible. Sabato spoke about the impact of the nuclear program on Argentine industry in the Seminar on Energy Management. In his opinion, the agreement signed between Brazil and Germany is quite broad and provides, in addition to the exchange of scientific information and the training of personnel, for the loan of 240 tons of Argentine yellow-cake to the Brazilian Nuclear Corporation (NUCLEBRAS). One hundred and twenty tons were delivered last year and the remainder will be forwarded by the end of this year. In return, between 1983 and 1984, NUCLEBRAS will ship to Argentina the same quantity of uranium plus 6 percent more of that material. Beginning in 1983, Argentina will send to NUCLEBRAS samples of zircalloy tubes that sheathe the uranium pellets, in order to begin to supply that material regularly. Finally, Brazil is going to supply heavy equipment manufactured by the NUCLEBRAS Heavy Equipment Corporation (NUCLEP), to be used in the pressure receptacle of the Atucha-II nuclear plant. [Text] [Sao Paulo O ESTADO DE SAO PAULO in Portuguese 21 Oct 82 p 33] 8711

CSO: 5100/2007

LAW ON ILLEGAL USE OF NUCLEAR ENERGY REPORTED

PY171355 Santiago EL MERCURIO in Spanish 24 Oct 82 pp A1, 12

[Text] To prevent the unlawful appropriation or illegal use of nuclear energy, radioactive material or ionizing radiations which could endanger the security of the people in general is one of the objectives included in a bill called "Nuclear Security Law."

The bill, prepared by the Chilean Nuclear Energy Commission, is in the hands of the government junta and has 10 chapters with a total of 73 articles.

In addition to the above-mentioned objective, the first article provides the other three fundamental objectives:

- To guarantee the protection of health, security and protection of persons, assets and the climate against the risks which can proceed from the peaceful use of nuclear energy;
- To establish a system of financial compensation to provide indemnities for possible damages which might occur from the peaceful use of nuclear energy; and
- To oversee the fulfillment of the obligations which could derive from international agreements and treaties in which Chile participates.

The first chapter refers to the objectives of the law and establishes the regulations and controlling authorities, along with the "Chilean Nuclear Energy Commission."

The second chapter includes a number of fundamental definitions of technical terms which are used throughout the process and which "must be defined for a better and clearer understanding of the subjects in which they are used."

The third chapter, which refers to the nuclear security measures, establishes the following goals:

- To prevent improper radiological risks to persons.
- To guarantee the physical protection of nuclear installations against illegal actions;

--To protect the atmosphere; and

--To safeguard national security.

The general principles are henceforth set, and in addition to the rules, a number of guidelines and technical norms on nuclear security and radiation protection will also emerge from these principles.

The fourth chapter, about authorizations, states that "It has special importance because it seeks to explain and to put an end to a confused situation which has existed to this date, given the parallelism of functions which exists between the commission and the SNS [National Health Service]."

The fifth chapter provides that "the organization has a necessary and preeminent power to operate as a regulator," because the "power to oversee is inseparable" from the power to regulate the nuclear activities.

This is established so that the commission "may fully exercise its role as overseer," which it failed to do, notwithstanding the power it has as a regulating organization.

The sixth chapter includes "something really new for our legislation," not as far as the juridical role or the civilian responsibility are concerned, but as far as the origin of this legislation on nuclear damage is concerned, and regarding "certain special characteristics which it represents in this specific case," the report states.

The document explains that "channeled" responsibility means that the responsibility "always falls upon the person who exploits the nuclear or radioactive installation." The objective of this is to "simplify the legal procedures for the victim" who thus will not bring charges against different persons "as he otherwise would according to our general legislation."

This chapter lays the groundwork for a system of security of financial guarantees, "which must cover the responsibility of the exploiter." This will be regulated in the "nuclear risks coverage rules."

The seventh chapter, which refers to "procedures and sanctions," authorizes the commission to impose sanctions for not complying with the provisions of the law and of the regulations "which may be issued in the future."

The eighth chapter refers to crimes and punishments and it regulates the common crimes which can be committed against the installations and those which can be committed using nuclear installations, radioactive materials and equipment generating ionizing radiations, "crimes which, given the extremely high danger of the object which is used, must be ruled by a special sanctioning system."

Finally, the ninth chapter abolishes the legal dispositions which are contrary to what is hereby established and "sets up a 1-year period for the issuance of the rules which will put this legal text into effect."

CSO: 5100/2010

CHRISTIAN COUNCIL ASKS GOVERNMENT TO PUSH NUCLEAR DISARMAMENT

Port-of-Spain SUNDAY GUARDIAN in English 24 Oct 82 p 1

[Text] THE Christian Council of Trinidad and Tobago is calling on the Government to press for nuclear disarmament among the major producing powers in the world.

The council, in identifying with the universal call for peace and a denunciation of the arms race, will today, United Nations Day, join others throughout the world in a ringing of "bells for peace" from 3 p.m. to 4 p.m.

According to the council, many countries today only see their survival in the form of maintenance of arsenals. As a result, the potential of the arms race, which can only be described as colossal, would in time obliterate our 20th century civilisation.

The council added in a statement: "The mere possibility of such a thing occurring should fill us with alarm, but added to this is the fact, that to activate the system of such total destruction only requires a computer malfunction. This has already happened on two occasions. Providentially the mishaps were discovered in time.

"The time has come, and may well have passed when people who are concerned about the arms race take some positive steps to cause those who make decisions about the production of nuclear weaponry to embark upon a significant reduction of these colossal arsenals.

"It is well known that it is often the poor nations who are caught in a bind by having to spend too large a portion of their national income on arms and ammunition.

"Millions upon millions of people, regardless of their race, colour or creed, want to live out their lives in peace. Such a basic desire is being frustrated in many parts of the world by the arms race, and indeed may well be placed in jeopardy for all persons everywhere."

CSO: 5100/7507

GOVERNMENT CHANGE DELAYS DECISION ON FAST BREEDER

Frankfurt/Main FRANKFURTER ZEITUNG /BLICK DURCH DIE WIRTSCHAFT in German 1 Nov 82
p 1

[Report by re; datelined Frankfurt, 31 October: "The Financing of Fast Reactors"]

[Text] While the new Minister for Research and Technology endeavors to secure financing for the two prototype reactors in Kalkar and Schmehausen, the German Bundestag hesitates to enact the affirmative legislation required. Initially the Bundestag plenum was to adopt no later than the end of October 1982 the report by the committee of inquiry on "future nuclear energy policy," that was very favorable indeed to the beginning of operations by the Kalkar fast breeder. The committee of inquiry's work was governed by this time schedule, and the speed required had been an item of internal discussion by the committee in spring 1982. Now, though, the Bundestag postponed its decision because the SPD, in particular, urged a delay until the end of November or early December.

The background to this delay is as follows: The SPD fraction is unsure how to vote now that it has become the opposition. The FDP prefers to postpone the debate in view of the FDP Federal Congress. As a consequence the German Bundestag reservation on approval for the SNR-300 in Kalkar has not been formally lifted, and the earlier financial commitments of the electricity industry cannot therefore become effective. This postponement of the lifting of the Bundestag reservation is bound to destabilize financing.

Moreover, the research ministry tends to incline toward delaying final financing at least until March 1983 and prefers to adopt no more than some interim solutions. Papers are drawn up, re-evaluations undertaken, but no clear decisions on apportioning shares to the state and business are to be expected with regard to the ultimate financing of the two prototype reactors. A re-evaluation of nuclear energy research generally is to be completed within a year in order to incorporate the completion of the breeder reactors and the high-temperature reactor in a new long-range nuclear research concept. However, the immediate result is failure to achieve the resolute decisions in the nuclear energy sector (at least with regard to research), that were earlier called for by the then CDU/CSU opposition.

As for the electricity industry, it is not prepared to contribute much more than promised the former government. The boards of the respective firms strictly reject any participation in excess of 25 percent of total costs; this applies to the fast

breeder. Regarding the high-temperature reactor, no general industry involvement is to be expected at all. At best some electricity supply firms may decide to participate. In this instance, though, the problem may be easier to handle, because operations are set to begin shortly and current costs also are lower than those for the fast breeder.

11698

CSO: 5100/2617

CONSTRUCTION OF URANIUM ENRICHMENT PLANT BEGINS

Duesseldorf ATOMWIRTSCHAFT-ATOMTECHNIK in German Oct 82 pp 510, 511, 512

[Article by H. Mohrhauer and M. Krey, Juelich: "Start of Construction on Uranium Enrichment Plant at Gronau"]

[Excerpts] In the framework of the Urenco expansion program, Uranit GmbH in Gronau is building a 1,000 ton uranium enrichment facility, for which it requested permission in 1978 and received the first partial permit at the end of 1981. In 1978 a site agreement was concluded with the city of Gronau and afterwards Urenco Germany GmbH was founded in the framework of the Almelo agreement of August 1979. The first partial permit is for a construction phase of 400 tons UTA/a. The facility follows the concept of the uranium isotope separation plant in Almelo, the Netherlands, where in 1979 construction of the first 400-ton phase began. The expansion of all partner facilities is determined by the development of the orders on hand at Urenco. According to plans, the first unit of the plant is to begin production in Gronau in 1985.

With the groundbreaking on 19 April 1982 and the official laying of the cornerstone on 23 September 1982 by the federal minister for research and technology, Dr A. von Buelow, a significant milestone was reached on the road to a uranium enrichment facility in the FRG. Although there have been several reports on the establishment and the achievements of the three-nation centrifuge project *, the start of construction will be a reason for taking a quick glance backward over what has been accomplished so far and an outlook over the work which is necessary before beginning operation.

Further Dates

The Gronau enrichment facility is based on the same plant concept as the 1,000-ton plant in Almelo. This concept stipulates that after the construction of a main building the separation capacity is to be gradually expanded and taken into operation by building successive separation halls connected

* H. Mohrhauer, M. Krey and D. Severin, "Urananreicherung mit Zentrifugen" [Uranium Enrichment With Centrifuges], ATOMWIRTSCHAFT 26, p 186 (March 1981).

with the main building. In these halls the centrifuges, coupled in cascades, will be installed. Three separation halls are being built for the now initiated 400-ton UTA/a first expansion step.

The time schedule for construction of the plant has been set so that production can begin in the first separation hall in 1985. After development work in the approximately 75 hectare area, construction of the buildings will begin in the second half of 1982 (Fig. 2 [not included]). In the fall of 1983 the buildings will then have been completed to such an extent that installation of the operational equipment can begin. "Clean conditions," that is to say the cleanliness required for installation of the equipment relating to the process technology in the cascade halls, is to be reached by 1984. After installation of the cascade pipe system, the installation of the centrifuges can then begin. The systems for feeding and extracting the uranium hexafluoride process gas are to be finished by mid-1985, so that operation can begin with the first centrifuges.

The total investments in the planned facility with a capacity of 1,000 UTA/a will amount to about DM 1 billion. Of this amount about DM 600 million are already needed for the first construction phase, since a great deal of previous work for the infrastructure is contained in the final capacity of 1,000 tons UTA/a. The centrifuges account for about one-third of the total investments.

Additional Expansion

When Urenco Germany GmbH goes into operation it will contribute to the fulfillment of the total delivery obligations of the Urenco organization. The division between three plants in three countries, which can be described as an internal diversification of Urenco's production facilities, contributes to the assurance of the supply. The expansion of the Gronau uranium enrichment facility is thus determined by Urenco's total order volume.

After the first production unit begins operation in 1985, additional centrifuges will constantly be installed up to a capacity of 400 tons UTA/a. The production of this construction phase will serve to fulfill delivery obligations in existing contracts servicing nuclear power plants in operation or at an advanced stage of construction.

The construction of additional separation halls for expansion of the 1,000-ton UTA/a capacity will be determined in time, first by the demand for separation work for nuclear power plants in the FRG, for which agreements have already been concluded with Urenco and for which the licensing procedures have already progressed far, and by the development of the programs for additional nuclear power plant construction in Great Britain and the FRG in the 1990's. Beyond that, Urenco is a recognized partner in the worldwide enrichment market. The two technologically conditioned advantages, lower energy consumption and the possibility of expansion geared to demand, are of an importance which should not be underestimated. The agreements concluded by Urenco in 1981, which were achieved in a difficult market due to the worldwide slowdown in new power plant construction, allow for the expectation that the figures projected for the 1980's, which have been markedly cut back as compared with the high expectations of the 1970's, will be realized.

FRANCE

EURODIF HIGH-TEMPERATURE WASTE TO BE USED TO HEAT COMMUNITY

Paris LES ECHOS in French 25 Oct 82 p 7

[Article by Dominique Michel]

[Text] The Drome general council has just given its approval for the use of EURODIF's [European Company for Uranium Enrichment] thermal wastes. The chairman of the council, Mr Maurice Pic, spoke of "this first European experiment with the use of high temperature (85°C) wastes as having a very great economic interest." He mentioned the difficulties encountered during the preparation of the project, but also spoke of "its very broad financial implications."

In fact, the idea of recovering this lost energy is by no means a totally new concept. The research project, which was handled by two research groups and supervised by the Rhone-Alpes Regional Energy Association, was first presented in July 1979. This project is limited just to the town of Pierrelatte.

What does this project actually consist of? It is simply a closed circuit system for distributing hot water between EURODIF and Pierrelatte, supplying this heat to the city's heating system, and on the way, providing heat to a greenhouse facility located on 52 hectares belonging to the SAFER [Land Management and Rural Establishment Company]. Technically, it will require the installation of heat collection equipment at the EURODIF site. EURODIF has agreed to provide energy for a period of 20 years at a price of 0.6 centime per therm, excluding taxes, at January 1982 price levels. Also required will be a pumping station for the system and regulation exchangers.

The purpose of the operation is to provide approximately 25,760 kWh to 2,287 housing units and public facilities and 90,000 kWh to 36 hectares of greenhouses, when all of the district heating system is connected. This will mean a total savings of some

15,000 TOE [Tons of Oil Equivalent] a year. The price will be 10 percent less than the average current price charged for district heating and 5.3 centimes per therm for the greenhouse facilities. The savings will be approximately 33 to 35 percent.

The total cost of the operation: 122.5 million francs, excluding taxes. Financing is to be provided as follows: 20 percent (24 million francs) by subsidies from the Rhone-Alpes public regional establishment, from the Drome general council, from the city of Pierrelatte, from the French Agency for the Control of Energy Sources, and from the ministry of agriculture. The rest will be provided from loans from Credit Agricole (28.3 million francs) and from the CAECL [expansion unknown] (76.3 million francs), plus repayable advances from local communities.

According to Mr Pic, there can hardly be any doubt about the success of the operation. "The last mortgages have now been arranged. Right now, 25 hectares of greenhouse facilities have been arranged for. The three units representing in all 36 hectares will certainly be taken without any problems. This will mean the potential creation of about 300 jobs." He then added: "This European first among major projects will be operational immediately, and we can look forward with certainty to receiving heat from this project starting next winter."

7679

CSO: 5100/2513

SAONE NUCLEAR PLANT NOT 'AMONG PRIORITIES'

Paris LES ECHOS in French 29 Oct 82 p 21

[Text] A paradox: while Burgundy is involved in the nuclear power industry on a large scale, it has no such plants in its own territory. And Burgundy does have an energy shortage. It consumes 4 TOE [Tons of Oil Equivalent] while it produces only 1 TOE. It has no oil. The bituminous shale at Autun? Not very promising. Gas? Nothing conclusive. Water power will provide only 75 million kWh. As for coal, its future remains uncertain at Blanzay and problematic in the Nievre area.

The site of Villemananche (Yonne) was proposed in the past for the construction of a nuclear power plant. But this site was passed over when the Nogent-sur-Marne site was chosen. It is true that Belleville is very close to the Nievre and Bugey is not far from the Saone-et-Loire.

EDF [French Electricity Company] did study several sites on the Saone, beginning in September 1975 at Macon. The Saone-et-Loire prefect then gathered together a group of local representatives and officials to announce this big news to them.

Reactions were intense. The project moved ahead underground, settling eventually on the Sennecey-le-Grand site (300 hectares). A breeder? Yes, and then no. Recently there was still talk of four 1300-MW units, of which only two would be built during the first phase (10 billion 1982 francs, requiring 7 to 8 years for construction).

What is happening now? In Burgundy, some top officials still talk about the "regional energy deficit," and urge the elected representatives to include this plant among the proposals for the Ninth Plan. The communists are generally favorable, while the socialists are gradually dropping their reserved attitude, but without any major public announcements.

The opposition is generally favorable. So there is almost a consensus, excluding the environmentalists. Now it is up to the government to make the decision.

On this point, Edmond Herve, who was recently in Dijon, left very little room for illusions. The Saone project is not included among the government's priorities and it could not be considered before at least a decade. So it will be kept on the shelf for a good long time.

Edmond Herve added: "The concept of regional energy independence, I believe, has no real meaning. Energy is a national problem."

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